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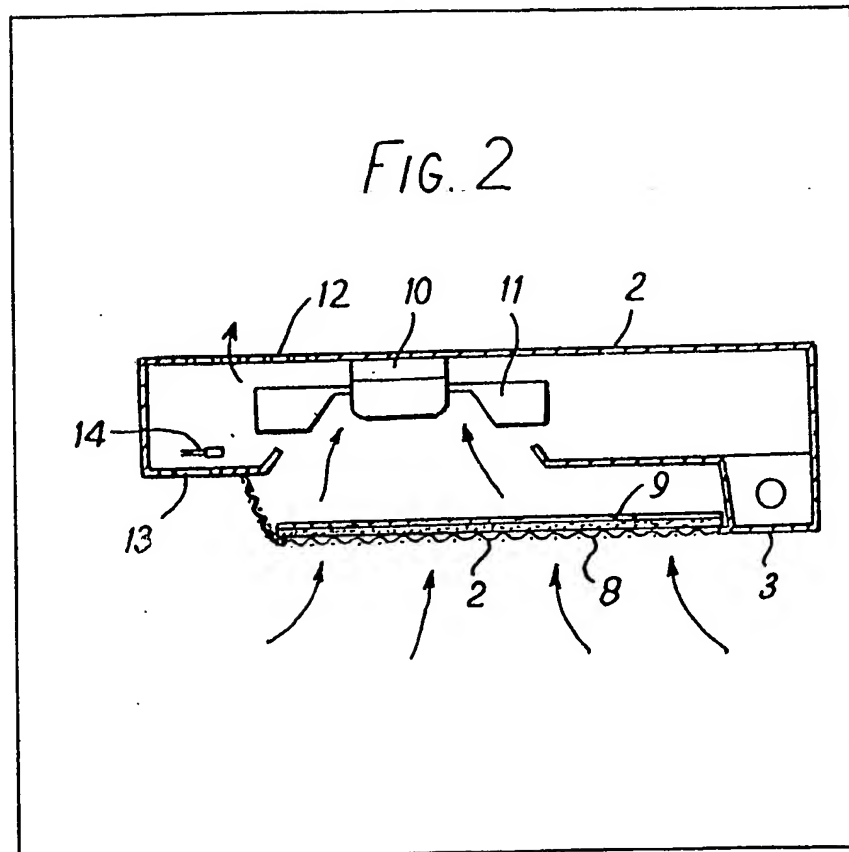
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(54) COOKER HOODS

(57) A cooker hood incorporates an  
electric fan (10) and a temperature  
sensor (14), operation of the fan being

automatically controlled by the sensor  
in accordance with the temperature at  
the cooker hood. Manual over-ride  
may be provided to allow continuous  
operation of the fan if desired. The  
hood may be recirculatory.



GB 2 002 106 A

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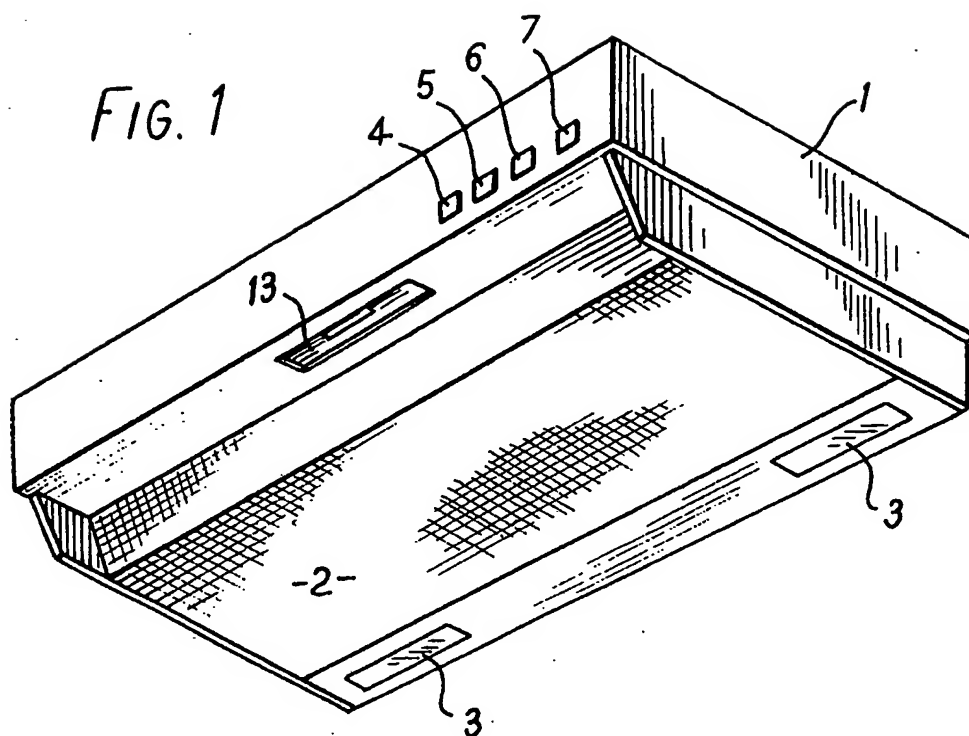
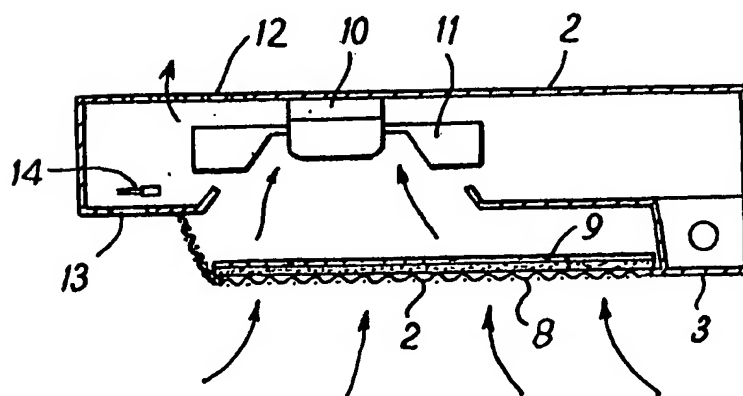
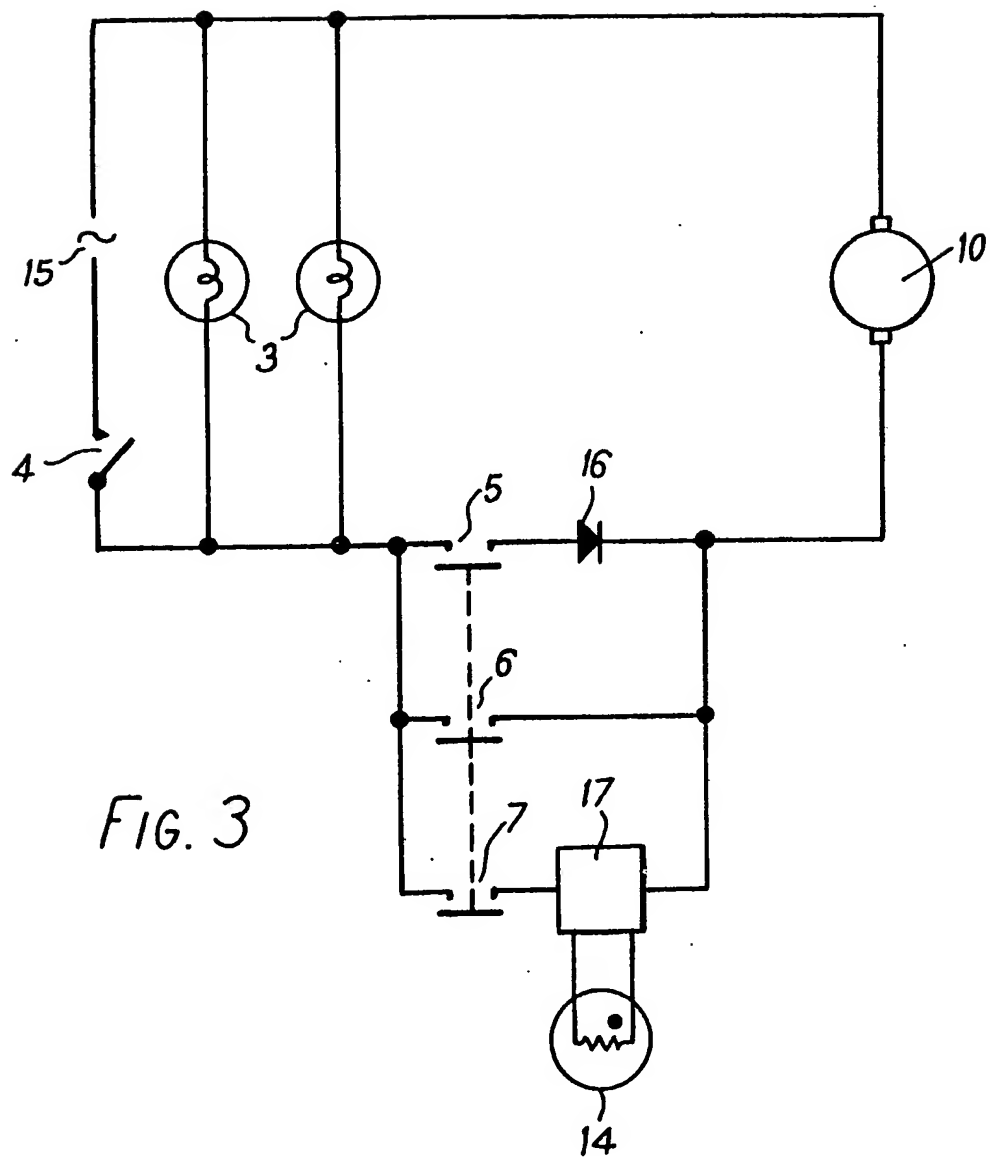


FIG. 2





## SPECIFICATION

## COOKER HOOD

The invention relates to a cooker hood.

According to the invention there is provided  
5 cooker hood comprising a housing for mounting  
above a cooker; an electric fan in the housing  
mounted to draw in gases and vapour from the  
cooker; a temperature sensor in the housing; and  
circuit means which enable the temperature sensor  
10 to control the fan in accordance with the  
temperature at the housing.

Control of the fan speed may be continuous in  
accordance with the temperature or in steps.  
However, the preferred arrangement is the  
simplest, where the fan is switched on when the  
15 temperature rises above a predetermined level and  
switches off again when the temperature falls  
below a particular level.

With the arrangement in accordance with the  
20 invention it is possible to provide an automatic  
mode for the cooker hood whereby the fan  
operates only when the temperature is sufficiently  
high. In other words, the fan will only operate if  
the temperature has risen enough as a  
25 consequence of the cooker being used for a  
significant time or to a significant extent.

In a preferred arrangement, the automatic mode  
is optional and there are provided further control  
buttons for allowing continuous operation of the  
30 fan, perhaps at two alternative speeds.

The cooker hood may be of the kind which  
exhausts air to the exterior. Alternatively, the  
hood may be of the recirculatory kind which  
incorporates a filter for grease and fumes and  
35 recirculates the exhaust gases to the kitchen.

The invention will further be described with  
reference to the accompanying drawings, of  
which:—

Figure 1 is a perspective view of a cooker hood  
40 in accordance with the invention;

Figure 2 is a sectional side elevation of the  
cooker hood of Figure 1; and

Figure 3 is a circuit diagram of the motor  
control arrangement for the cooker hood.

Referring to Figure 1, the cooker hood  
45 comprises a housing 1 for mounting above a  
cooker. The underside of the housing has a metal  
grill 2, through which gases and vapours from the  
cooker are drawn. Lights 3 to illuminate the  
50 cooker are included. On the front of the cooker  
hood is a set of push-button controls. Button 4 is  
an on/off button and controls the lights 3. Button 5  
switches on a fan in the cooker hood at slow speed.  
Button 6 switches the fan on at full speed, and  
55 button 7 allows the fan to operate in an automatic  
mode to be described.

Referring to Figure 2 the hood is shown in side  
elevation and within the grill 2 there is a grease  
filter 8 surmounted by a charcoal filter 9 for  
60 absorbing fumes and smells.

Gases from the cooker are drawn through the  
filter by an electric fan which has a motor 10 and  
fan blades 11. The filtered gases are recirculated

through vents 12.

65 At the front of the cooker hood there is an  
aperture 13 above which is a thermistor 14. The  
thermistor detects the temperature at the cooker  
hood.

Referring now to Figure 3, there is shown the  
70 circuit diagram of the control arrangement for the  
cooker hood. The motor 10 is a commutator motor  
which derives current from an alternating current  
supply 15. Push-button 4 is an on/off switch which  
also illuminates the lamps 3.

75 Push-buttons 5, 6 and 7 have a mechanical  
interlocking action so that when a button is  
depressed it stays locked until another button is  
depressed. Push-button 5 connects the motor 10 to  
the alternating current supply through a diode 16.  
80 This effectively reduces the supply voltage and the  
motor runs at about half speed. Depression of  
button 6 by-passes the button 5 and the diode 16 so  
that the full voltage of the supply is applied to the  
motor 10. The motor therefore runs at full speed.

85 Depression of button 7 by-passes the push-  
button 6 (which is thereby disengaged) with a  
control circuit 17. The circuit 17 responds to the  
output from the thermistor 14. Circuit 17 includes  
a relay and when the temperature of thermistor 14  
90 exceeds 40°C the relay is closed so that a direct  
connection is made between the mains supply and  
the motor 10. The motor therefore runs at full  
speed. When the temperature of the thermistor 14  
falls below 40°C the relay cuts out and the motor  
95 10 is cut off. Under normal operating conditions,  
the fan will therefore run if the temperature at the  
cooker hood is 40°C or above. Otherwise, the fan  
will automatically cut off.

The invention is not restricted to the details of  
100 the embodiment described above with reference to  
the drawings. For example, the temperature sensor  
may be a bi-metallic switch instead of a thermistor,  
the switch being arranged to close to energise the  
fan motor when the predetermined temperature is  
105 attained. The predetermined temperature is said in  
the example to be 40°C. However, it will be  
appreciated that this can be set to any desired  
level.

## CLAIMS

110 1. A cooker hood comprising a housing for  
mounting above a cooker; an electric fan in the  
housing mounted to draw in gases and vapour from  
the cooker; a temperature sensor in the housing;  
and circuit means which enable the temperature  
115 sensor to control the fan in accordance with the  
temperature at the housing.

2. A cooker hood as claimed in claim 1 wherein  
the circuit means is such that the fan is switched on  
when the temperature rises above a predetermined  
120 level and is switched off again when the  
temperature falls below a particular level.

3. A cooker hood as claimed in claim 2 wherein  
the said predetermined level is substantially 40°C.

125 4. A cooker hood as claimed in claim 3 wherein  
a manual control is provided for over-riding  
automatic temperature-control of the fan and

allowing the fan to run continuously.

5 5. A cooker hood as claimed in claim 4 wherein the manual control is effective to select between half-speed and full-speed continuous running of the fan.

6. A cooker hood as claimed in claim 5 wherein half-speed operation of the fan is achieved by

switching a diode into circuit with the fan motor, the power supply being A.C.

10 7. A cooker hood as claimed in any of the preceding claims which is recirculatory.

8. A cooker hood substantially as hereinbefore described with reference to the accompanying drawings.

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